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ORIGINAL ARTICLES.

AN ACCOUNT OF A RECENT EPIDEMIC OF MEASLES IN THE NEW YORK FOUNDLING HOSPITAL; ITS RELATION TO IMMUNIZATION WITH DIPHTHERIA ANTITOXIN.

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MEASLES in private practice, compared with measles epidemic in a public institution, seems to bear much the same relation in respect to gravity that varioloid bears to modified smallpox. Soldiers in barracks, prisoners in penitentaries, and children in institutions seem to suffer from the grouping of cases of this infectious disease. This is especially true of epidemics occurring during the late winter months, after a long period of housing. There is certainly no epidemic disease which has ever visited the New York Foundling Hospital that has inspired such dread as has measles; its contagiousness is greatest, its complications most constant, its sequelæ gravest, and its mortality highest. Two years ago the Medical Board of the Foundling Hospital set itself the task of keeping measles out of the institution. Its methods were so far successful that no case occurred within doors or was brought in by children returning from the out-door department during a period of sixteen months. At the end of this time, by accident, an infant in the earliest stage of the disease, sojourning in the house one night, started the epidemic which forms the subject of this paper. In its results, this epidemic was by far the most favorable of all ever experienced in the institution; it was widely distributed, least serious in its complications, and least grave in its fatalities; it appeared in every nursery, penetrated every quarantine, attacked children already suffering from whooping-cough, bronchitis, diphtheria, and tuberculosis, infecting all susceptible infants. Though the figures may not impress the practitioner, whose experience is confined to measles occurring in well-nourished children living at home, the hospital physician will appreciate them, and also the steps taken to modify the course of the disease.

Season.—This epidemic occurred during October and November. The temperature during these two months was unusually uniform and mild, allowing efficient ventilation. The children had had, during the previous summer, abundant recreation in the open air, and were in a good state of physical health.

Distribution.—Every precaution was taken to avoid grouping, so far as possible, of children in the active stage of the disease.

Precautions.—The children's eyes, noses, and mouths were cleansed with boric-acid solution. The rooms were not kept dark, but the beds were so arranged that the eyes were turned away from the bright light and reflecting surfaces.

It was a rule to keep all children in bed, under watchful care, during at least six days from the time the temperature became normal. Special stress was laid upon this regulation, at the same time that mouth cleanliness and ventilation were carefully supervised. Under this routine practice but two patients developed pneumonia. In both the temperature had previously been normal twenty-four hours. The complicating pneumonias developed during the first stage of the disease—the first week.

Statistics.—In all, there were 258 cases and 36 deaths (13.9 per cent.). Of the 258 cases 53 were complicated with bronchopneumonia (20.5 per cent.); of these 31 terminated fatally (5.8 per cent.). Autopsy showed the presence of complicating bronchopneumonia in 31 of the 36 fatal cases.

It should be remembered that the mortality is from complicated measles occurring in susceptible children, in age from nurslings to "runabouts" 4½ years old, regardless of previous illness or general condition of nutrition.

Complicating Diphtheria — Immunization. — In many measles epidemics diphtheria, pharyngeal and laryngeal, with subsequent bronchopneumonia, has been a most pronounced feature. In the one under consideration systematic immunization was practised upon all children not believed to be, by reason of age or location in the hospital, reasonably safe from complicating diphtheria. No nursing babies were immunized—one developed diphtheria. Of those believed to be in danger of contracting this disease (in age from 2½ to 4½ years, or from location in or near nurseries in which diphtheria had been observed in the memory of Dr. N. R. Norton, the present house physician) 129 were immunized. Some of this number had probably had measles

previously; for though fully exposed they did not contract the disease. However, 77 of the number immunized against diphtheria successfully passed through measles without developing this dread complication. In one nursery, considered safe, no cases of diphtheria developed, and yet none of the patients contained in it (13 susceptible) were immunized. This nursery was at the top of the largest building — the administration building — and widely separated from others. In a second nursery, where diphtheria had been occasionally observed, nine children with measles were not immunized, and the third day after the appearance of the rash, four out of the nine had a bloody nasal discharge. Cultures made from this showed the presence of the diphtheria bacillus. It was considered that this nursery would afford a fair control upon the observations in the remainder of the hospital. When the diagnosis of diphtheria was confirmed the four patients mentioned were immediately injected with 2000 units of antitoxin; the five remaining patients were immunized. No further cases appeared in this nursery, and the four children already having nasal diphtheria recovered.

The immunizing dose of antitoxin employed was 250 units (antitoxin of the New York Board of Health). No antitoxic rash appeared after the employment of this dose. On two occasions a dose of 400 units was employed for purposes of immunization, with the subsequent appearance of urticaria. No local disturbance or constitutional reaction was observed in the cases immunized with 250 antitoxic units. As regards the accepted period of immunity following the injection of the diphtheria serum, it was interesting to note that in two cases, after respectively 31 and 33 days, pharyngeal diphtheria developed. In these, curative doses of the serum were at once administered, and the patients promptly recovered.

A CONTRIBUTION TO THE SURGERY OF EMPYEMA, WITH THE HISTORY OF AN ILLUSTRATIVE CASE.[1]

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A CASE of empyema having recently come under my observation, and having found myself much involved in doubt as to proper methods of treatment to be pursued during the long course of the affection, I have thought it might be profitable to record my experience, and thus, perhaps, elicit that of others.

Pleurisy has been divided into three varieties dependent upon the character of the exudate, whether fibrinous, serofibrinous, or purulent, the last being the one which at present especially claims our attention. The subject of empyema and its rational treatment has, during many years, been involved in much obscurity, owing to a lack of knowledge of the etiologic factors which determine the various manifestations of the disease. The consensus of modern opinion seems to be "that every empyema is due to microbic invasion of the pleural cavity."[1] The relative frequency of the different varieties of this disease has been stated to be as follows: "In adults, 50 per cent. of all cases are streptococcic, 25 per cent. pneumococcic, and the remaining 25 per cent. may be divided among several forms, of which the tuberculous is relatively most common. In children the pneumococcus causes at least 60 per cent., possibly 75 per cent. of all cases; most of the remainder are streptococcic or staphylococcic, both tuberculosis and putridity being rare."[2]

The rational treatment of purulent pleurisy demands the immediate evacuation of the pus by means of one of the methods now employed, *viz.*, aspiration, simple incision, thoracotomy with resection, and siphon drainage. It is now believed by many competent observers that each of these methods is useful when applied to properly selected cases.

The following is the history of the case observed by me:

C. B., a student, aged 16 years. His father died as the result of an accident. His mother is living and well. The paternal grandmother died of cancer of the stomach, and three brothers, one sister, and one uncle of the mother died of phthisis pulmonalis.

With the exception of chicken-pox, which he had two years before, the patient had always enjoyed good health up to the date of the illness under consideration. Just previous to this he had been training for a football match, and living upon a restricted diet. On December 10, 1896, while on the cars going from New York to Sing Sing, he had a chill, followed by high fever, the temperature under the tongue being 104.8° F.; pulse, 108; respiration, 28. A careful examination showed acute pneumonia of the lower lobe of the right lung, and also friction-sounds, indicating involvement of the pleura. The disease continued six days, with a morning temperature of about 102° F. and an afternoon rise to about 103° F., respirations averaging 36 to the minute, and pulse 112. At this period his daily diet consisted of about four pints of milk. On the seventh day the temperature dropped to 100.6° F. at midnight, and on the eighth day to 99.2° F. at 3 P.M., pulse and respiration remaining the same as before. On the tenth day the temperature dropped to normal at 3 A.M., and remained so until 9 A.M., rising to 100° F. at 3 P.M. Thereafter, from the eleventh to the 15th day, the temperature was normal or be-

[1] Read at a meeting of the Medical Society of the County of New York, October 25, 1897.

[1] Whitney, "Twentieth Century Practice of Medicine," vol. vii, Section on Diseases of the Pleura.

[2] *Ibid.*

low normal at 9 A.M., and then gradually rose to 100° F. by 9 P.M. Physical examination now showed pleurisy with effusion. On the sixteenth day the temperature was normal at noon and 102.4° F. at midnight. On the seventeenth day at 6 A.M. the temperature was 99° F., and at 9 P.M., 103° F., and the patient suffered considerably from dyspnea and pain in the right side, respiration rising to 32 and pulse to 120 at 6 P.M.

On the eighteenth day, December 28, 1896, I saw him with Dr. Madden of Sing Sing, who had been in daily attendance, and it was decided to aspirate the chest to relieve the patient and ascertain the nature of the effusion. From the character of the symptoms the latter was suspected to be purulent. Accordingly, I aspirated the chest under proper antiseptic precautions between the fourth and fifth ribs on the right side, and drew away twenty ounces of so-called laudable pus, much to the patient's relief.

On the nineteenth day the temperature was normal at 9 A.M., and rose to 101° F. at 6 P.M. An examination of the sputum by Dr. Harlow Brooks on December 29th showed the presence of the diplococcus of pneumonia, a few pus-cells, but no tubercle bacilli. From the twentieth to the twenty-second day the morning temperature was about 98.8° F.; evening temperature, 101° F.; pulse, 100; respiration 20. On the twenty-third day, with a morning temperature of 98.8° F., there was a rise at midnight to 100° F. On the twenty-fourth day the chest was again aspirated between the fifth and sixth ribs, and twenty ounces of pus removed.

January 4, 1897, the patient was brought from Sing Sing to New York, and bore the journey well. On January 5, 1897, it having been decided that an opening should be made to secure proper drainage and the skin surface of the chest having been properly cleansed and treated with applications of corrosive sublimate 1-1000, an incision was made by Dr. W. T. Bull on the right side in the axillary line through and parallel to the fibers of the latissimus dorsi muscle over the eighth and ninth ribs, and portions of these ribs, about one and one-half inches in length, were removed by first lifting up the periosteum and sliding it off, and then with a chisel and hammer cuts were made in the ninth rib, which was then cut through with the bone-forceps. The portion of the eighth rib was also cut through in the same manner. The pleural cavity was opened, and a large quantity of pus and fibrinous material removed. The cavity was irrigated with sterilized water and two rubber tubes (with perforations) three and one-half inches in length and about one-third inch in diameter were introduced, with a silk ligature tied through them from end to end as a precautionary measure in case of breakage. A large safety-pin was placed at the external end of the tubes, and a dressing of sterilized gauze and cotton applied and held in place by a folded towel over which were fastened strips of adhesive plaster by means of tape connected with the pieces of plaster.

On January 6th, the day after the operation, the temperature at 4 A.M. was 98.4° F., and at 4 P.M. 99.8° F.; respiration, 24; pulse, 108. Dr. J. B. Walker dressed the wound, removing the soiled gauze as often as it became saturated with discharge, and substituting fresh sterilized gauze, the change of dressing being made three times in each twenty-four hours. On account of sleeplessness the patient was given trional in 10-grain doses, and for the relief of pain ¼ grain of codein was administered. Action of the bowels was secured by means of two cascarine tablets given each night. On January 7th, 8th, and 9th the wound was dressed as before, the average morning temperature being normal or subnormal, and at 4 P.M., 99.2° F., respiration 20, pulse 96. January 10th the tubes were removed, cleaned, and the usual dressing applied, the temperature being 98° F. at 4 P.M. and 100° F. at 12 P.M. January 11th the dressing was changed twice; there was considerable discharge, and the temperature at noon was 98.4° F. and at 8 P.M., 100.8° F.

From January 12th to the 15th the dressing was reapplied as usual, the morning temperature being 98.4° F., evening temperature about 100.8° F. On January 16th the tubes were removed and the wound irrigated, for the first time since the operation, with sterilized normal salt solution; tubes cleaned and reinserted; temperature at 8 A.M., 98.9° F., 8 P.M., 102.8° F.; pulse, 115; respiration, 20. From January 17th to the 24th irrigation of the cavity with sterilized normal salt solution was continued once daily, and the morning temperature averaged on each day about 102° F., and on one of these days I remarked that the evening temperature seemed to have gone persistently higher since the irrigations of the chest-cavity had been employed, although the patient had freely taken a most nourishing diet. From January 25th to February 1st the same treatment was continued, the temperature retaining the same characteristics, and the patient now complained of night-sweats; the spleen was found to be somewhat enlarged. There was an anemic murmur audible over the base of the heart. There was also slight edema of the lower portion of the legs, and I feared amyloid degeneration. I will here state that on January 17th Dr. Harlow Brooks of the Carnegie Laboratory wrote me as follows: "I did an autopsy to-day upon the guinea-pig which I inoculated with the pus from your case of empyema, and I find no evidence of tuberculosis. I find the cultures made from the pus to be a mixed growth, largely composed of pneumococci." It may also be stated that the Wolff bottles for promoting expansion of the lung had daily been used by the patient, and that a careful examination of the urine revealed nothing abnormal.

Realizing that some measure must be taken to prevent further absorption of septic matter, I asked Dr. Janeway to see the case with Dr. W. T. Bull and myself, and after a careful examination he expressed the opinion that he was unable to find any evidence of tuberculous consolidation or chronic pneumonia; that there was considerable thickening of the walls of the pleural sac, and an anemic murmur at the base of the heart, and also that the spleen was somewhat enlarged. His diagnosis was that the fever

was septic, and he recommended irrigation of the chest-cavity with a solution of carbolic acid in warm water (1 to 1000) and careful observation of the effects, being sure to measure the quantity introduced and compare the same with the amount returned, so as to leave no residue in the chest-cavity. He remarked that he had seen septic fever of this character abate under such treatment. The chest-cavity was irrigated with the above-mentioned solution of carbolic acid at 6 P.M. on February 2d, with no bad effect. On February 3d the chest-cavity was irrigated with a solution of carbolic acid, and in order to improve the general nutrition it was recommended that the patient take three milk punches daily, each containing ½ ounce of whiskey, and also a teacupful of beef juice three times a day and as much nourishing food as possible. One or two teaspoonfuls of Gudes' solution of pepto-manganate of iron after meals was added to the medication. His temperature on the evening of February 3d was 103° F.; pulse, 112; respiration, 24.

On February 4th the temperature remained normal all day, the same treatment being continued, and we had an illustration of Sir Joseph Lister's principle "that the untoward consequences of operations are frequently due not to the operation itself, but to the poisoning of the wound by the products of decomposing discharges and poisoning of the system generally by absorption of these products. The decomposition is due to low organisms introduced from without, and may be eliminated by the use of such substances as will prevent their development or destroy them when present." The only question is whether it is safe to use such agents in a suppurating pleural sac immediately after an operation or during the following few weeks. In this case, during the first ten days following the operation, thorough drainage was secured by means of proper tubes and sterilized dressings frequently changed, with the effect that septic fever still continued. Irrigation with sterilized normal salt solution was then used, with the result that the fever was increased and did not abate until the carbolized water was used. I may add that owing to the fact that air was drawn into the cavity through the external opening, as was shown by the patient breathing and whistling through it, decomposition was produced by the introduction of low organisms with the air.

On February 5th the tubes were removed, cleaned, and the cavity irrigated with carbolized water, the temperature remaining normal, but the patient had a profuse perspiration during the night. On February 6th and 7th the same treatment was continued.

On Fedruary 8th the two tubes were removed and the cavity irrigated with carbolized water and a single perforated tube, one-half inch in diameter and three inches in length was introduced in the opening. There has been no rise of temperature above normal since February 2d. On February 9th the opening in the chest was observed to be growing smaller. There was some difficulty in inserting the large tube; patient daily takes three milk punches with one-half ounce of whiskey in each, three tumblers of beef juice, one ounce and a half of Gudes' pepto-mangan, and three pills containing 1 grain of powdered iron, $\frac{1}{60}$-grain of strychnin, $\frac{1}{40}$-grain of arsenious acid, and $\frac{1}{300}$-grain of phosphorus, and also a most nourishing diet. February 11th to 13th, temperature normal; same treatment continued. On February 14th the large one-half inch tube was removed, and a smaller tube, one-quarter inch in diameter and three inches in length inserted; irrigation continued; temperature normal; drainage perfect; treatment continued. February 18th, the patient took an hours' ride in a carriage. On February 22d, he went home.

February 26th: Temperature normal during the twenty-four hours; no pain; patient walked around the block in the open air. He is using the Wolff bottles and an elastic exerciser to promote lung expansion, as he shows a tendency to stoop over and lean toward the right side, due to contraction of the pleural cavity.

I will add that during all this period particular attention was paid to the diet, the patient taking daily one pint of beef juice, a bottle of beer with his dinner, and three milk punches each containing one-half ounce of whiskey.

March 1st: Dr. Walker dressed the wound, irrigating the sinus with carbolized water and removing the one-quarter-inch tube. On coughing only about twenty drops of pus was expelled. A new perforated rubber tube one-eighth of an inch in diameter and two inches in length was now inserted, and the wound dressed with sterilized gauze.

March 8th: The same method of irrigation and dressing have been continued. The tube was found in the dressing when the latter was removed, and it was not reinserted. The sinus was now one and one-quarter inches in depth, and it was wiped out with cotton saturated with carbolized water, and a piece of gauze put in the opening. March 9th: A piece of gauze saturated with balsam Peru was inserted. March 13th: Sinus one and one-eighth inches in depth. A solution of nitrate of silver sixty grains to the ounce was applied to its walls and it was dressed with a piece of gauze dipped in thioform.

From March 14th to March 30th the sinus was daily dressed by cleansing with carbolized water, and a small piece of gauze saturated with balsam of Peru was inserted and then covered with a pad of gauze which was held in place by strips of adhesive plaster.

April 2d: The patient went to the country, and was instructed to apply daily the same dressing.

April 26th: The patient was seen by Dr. W. T. Bull and myself. Sinus has been daily dressed as previously described, and as there was no evidence of necrosis, it was decided to discontinue previous method of dressing and apply an ointment consisting of ten grains of boric acid in one ounce of white vaselin, under which application the sinus closed in about three days, healing soundly, and patient has remained well until the date of writing.

May 15th: I made careful measurements of pa-

tient's chest with the following results: On the right side a line drawn from the spinous processes of the dorsal vertebræ, on a line with the nipple, to a marked point on the middle of the sternum measured, on inspiration, 15¾ inches, on expiration, 14¾ inches. The same measurement on the left side, on inspiration was 16⅜ inches, on expiration, 15 inches. Measurement of the whole chest over the same line: Inspiration, 31½ inches; expiration, 29½ inches. This shows a difference between the two sides on inspiration of ⅝ of an inch, and on expiration of ¼ of an inch—a good showing, it seems to me, in consideration of the circumstances.

Summary.—The points of interest in connection with this subject and the history of the case observed by me are as follows:

1. The necessity of securing the highest point of nutrition in cases of pneumonia to sustain the vital activity and power of the body-cells to enable them to limit the ravages of the pneumococcus.

2. The importance of an early operation in empyema as affecting the prognosis, owing to the results of delay in allowing the increase of fibrinous effusion into the pleural cavity and thickening of the walls of the pleural sac, thus hindering healthy repair and lung expansion after evacuation of the pus.

3. The marked effect of irrigation of the suppurating pleural cavity with a solution of carbolic acid (1–1000), and thorough drainage in arresting the septicemia after its duration of four weeks following the operation, thus demonstrating the principle of the importance of preventing the entrance of low organisms into a suppurating cavity, or of destroying them after entrance in order to prevent or arrest septic poisoning.

4. The evidence given in this case by a characteristic temperature on the sixteenth and seventeenth days of the illness and on following days which pointed to purulent infection, although it has been shown that pus accumulation may occur in the chest with no sign of fever.

5. That in the case described there was evidently a perforation of the lung, thus allowing communication between the bronchi and the pleural sac which favored putrefaction, and that in such cases, characterized by putrid pus, carbolized irrigations are necessary.

To sum up my ideas after a limited experience and a careful review of the literature of the subject, aspiration is found to give twenty per cent. of cures, as shown by Holt's cases, and is sometimes efficient in children, tuberculosis, and in other cases which in the present state of our knowledge it is difficult to differentiate, and is, therefore, an uncertain method of treatment.

Simple incision with drainage and without resection, according to some statistics, gives equally good results as thoracotomy with resection, and reliable testimony seems to recommend it as particularly adapted for the disease in infants and in the debilitated, as the operation can be done without a general anesthetic, local anesthesia being sufficient, though further facts are needed, as Dr. Morrison says, before its position can be established. Thoracotomy with resection, when performed early, so as to secure thorough and efficient drainage, and combined with proper after treatment of the wound thus preventing the entrance of germs and the avoidance of irrigation, if possible, would seem by the now accumulated experience of many observers to offer the best prospect of a successful issue in the majority of cases. Still, that antiseptic irrigation may prove useful in certain instances, is, I think, proved by the course of events related by me. Siphon drainage would seem, according to the results obtained, to be a justifiable procedure under certain conditions.

RATIONAL GYNECOLOGY.

BY JOHN H. KELLOGG, M.D.,
OF BATTLE CREEK, MICH.

(Continued from page 791.)

Kneading with the Closed Fist.—(Fig. 11.) With the closed fists used in alternation work along the whole course of the colon, beginning at the upper end of the cecum and directing the movements upward to the lower border of the ribs to a point midway between the umbilicus and the sternum, at which the median line is crossed, then down on the opposite side, ending at a point close to the pubic bone, and just to the left of the median line.

The rate of movement should not be more than thirty per minute or two seconds for each hand. Care should be taken not to release the pressure upon the bowels with one hand until the other hand has been placed in position just in advance and close to it. Care must be also taken to follow the curves of the colon.

Kneading with the Thumbs.—(Fig. 12.) With the fingers behind and the thumbs in front, grasp the loin on each side between the thumb and the fingers. The right hand should thus grasp the lower end of the cecum, while the left hand grasps the upper part of the descending colon just beneath the ribs. Movements are then executed in an upward direction with the right hand, and in a downward direction with the left, the operator facing the patient's feet.

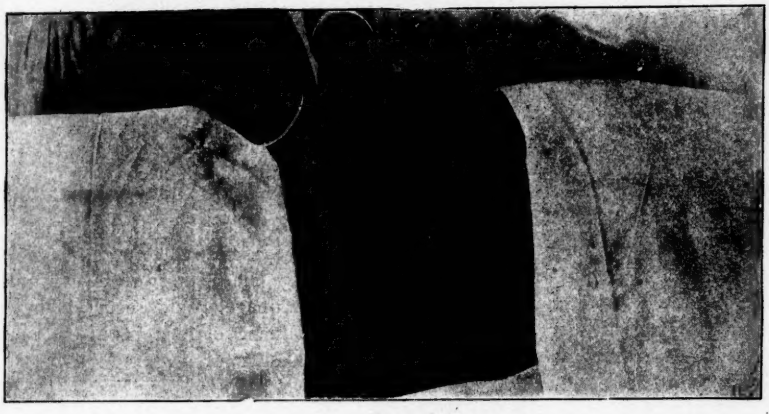
Mass Kneading.—(Fig. 13.) Still another procedure of value in abdominal massage is what may be termed "mass kneading," in which the operator endeavors to seize the abdominal contents with both

hands, manipulating them precisely as a baker does a mass of dough, the fingers of one hand being used in opposition to the heel of the other hand, and the abdominal contents kneaded and manipulated between the two hands.

upon the recti muscles, the operator facing the patient, the muscles are rapidly manipulated by the thumbs, working from below upward.

Replacement of the Abdominal Viscera.—(Fig 15.) This is necessary in many cases of abdominal massage as a preliminary procedure. It is especially required in women, since in the majority of invalid women some of the viscera are almost certain to be misplaced. The stomach is displaced from two to five inches below its normal position in nineteen out of twenty of all adult civilized women who have

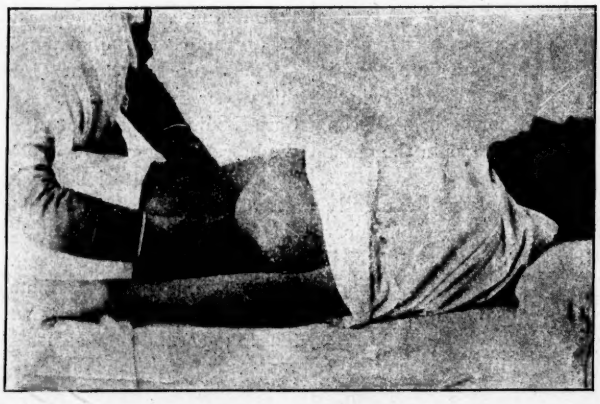
FIG. 11.



Showing fist kneading of colon.

Rolling.—When the abdominal walls are considerably relaxed, they may be gathered between the hands placed parallel with the body, one on each side, and thus compressed, rolled, and shaken, together with the intestinal contents. Care must be taken to include the abdominal contents, and not

FIG. 12.



Showing thumb kneading of colon.

merely the skin and subcutaneous tissue or a mass of subcutaneous fat. A very effective mode of masseing the recti muscles is to cause the patient to raise the head (Fig. 14), then, with both hands placed upon the abdomen in such a manner that the thumbs rest

worn the conventional dress. A movable or floating right kidney is to be found in at least twenty-five per cent. of women who are likely to require abdominal massage. The liver is also not infrequently found displaced. The patient lies upon the couch

with the head, not the shoulders, elevated, and with the knees well drawn up so that the abdominal walls shall be as thoroughly relaxed as possible. First of all, the patient is made to take several deep breaths, care being taken to see that the abdomen is expanded well with each inspiration.

The next procedure is to lift the entire intestinal mass. To do this the masseur stands with his right side to the patient, facing the patient's feet, and places one hand in either groin, the hand resting upon the ulnar borders (little fingers), and having the direction of Poupart's ligament. The hands are made to move slowly upward, the ulnar borders being at the same time crowded as deep as may be into the pelvis so as to grasp as much as possible of the abdominal contents, which are then drawn forcibly upward. (Fig. 16.)

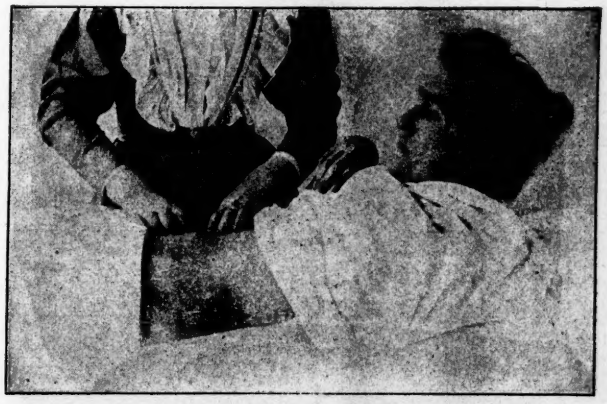
Shaking and rolling movements are valuable as a preliminary measure, or used in alternation with the lifting movements, as a means of loosening up, so to speak, the abdominal contents, to prepare them for gliding easily into their normal positions. The lifting movements should be executed from three to six times in alternation with rolling or shaking movements.

FIG. 13.

Showing mass kneading.

Inspiratory Lifting.—I was led to adopt this means of lifting the abdominal contents by a series of studies for the purpose of noting the influence of respiration upon intrapelvic pressure. I observed that the ascent and descent of the uterus in respiration may be greatly increased by modifying the inspiratory and expiratory movements. For example, by directing the patient to take a deep breath and then asking her to force the breath downward, it

FIG. 14.



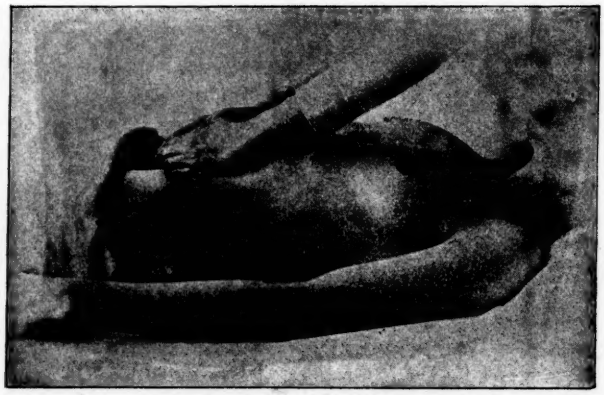
Showing method of kneading abdominal muscles.

was noticed that the pelvic contents were forced downward to a notable extent; while by causing the patient to completely empty the lungs, and then, with the glottis closed, to make a forcible effort, the pelvic and abdominal contents were made to ascend in a very remarkable manner. In one instance it was noted that the uterus which lay quite low in the pelvis was drawn up more than an inch with each respiratory effort executed in the manner described. The patient, lying upon the back, with the hands at the side, so as to relax the abdominal muscles as much as possible, is directed to first take a full breath, breathing as deeply as possible, and then to completely empty the lungs. Then instead of drawing in the breath as usual, the glottis is closed, and a strong inspiratory effort is made without the admission of air. By this method the whole inspiratory force is used in lifting the abdominal contents. In this movement the patient should be made to expand the chest, both the upper and the lower parts, as much as possible, as it is desired to suppress the action of the diaphragm so far as may be done voluntarily, while bringing into most active play those muscles of inspiration which act upon the ribs. This not only produces a powerful upward draft upon the abdominal contents but at the same time enlarges the waist, and makes room for the viscera, so that their ascent is facilitated. At the same time that the patient executes inspiratory lifting the abdominal contents should be lifted from below with the hands as previously directed. The patient should not be allowed to refrain from breathing more than ten or fifteen seconds. During this time, however, from three to five vigorous inspiratory liftings may be

FIG. 15

Showing method of replacement of stomach.

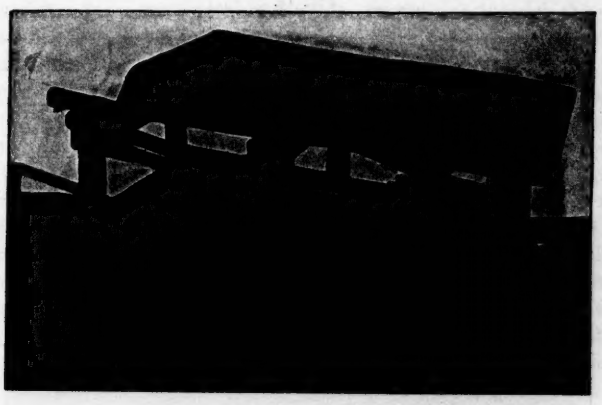
FIG. 16.



Showing method of lifting the viscera.

made. Then the patient may be allowed to take a few ordinary respirations, and finally a deep breath, followed by a complete expiration and a renewal of the inspiratory lifting. This procedure is of special value in connection with pelvic massage.

FIG. 17.



Showing apparatus for kneading the abdomen.

Pelvic Massage.—Pelvic massage should never be undertaken by any person who is not a qualified and experienced physician. The success of this procedure depends, first, upon a correct diagnosis and secondly, upon special aptitude on the part of the masseur. It is scarcely possible for a person to become proficient in this special application of massage without personal instruction from some one who has by long experience become skilled in its employment and in the selection of cases to which it is adapted. The patient lies upon the back, with the heels well drawn up, the knees separated, the hips slightly elevated, arms by the side, and the head (not the shoulders) supported by a thin pillow. The following brief descriptions of each of the manipulations will be useful to those who may be desirous of making practical use of massage as a curative measure:

Preliminary Procedures. — The manipulations practised in pelvic massage are rendered very much more efficient by the application of a few preliminary movements for the purpose of placing the abdominal and pelvic contents in the most favorable condition possible. It should be remembered that in pelvic displacement there will also be found displacement of the abdominal contents. When the uterus falls backward the folds of intestines which have formerly been behind it, aiding and supporting it, change their position, overlying it above and in front.

FIG. 18.

Showing apparatus for pelvis tilting.

Replacement of the uterus requires, first of all, replacement of the intestines; in other words, room must be made for it in its old position before it can be restored to its normal place.

The preliminary movements which I have found most effective are: (*a*) deep breathing; (*b*) lifting abdominal contents; (*c*) inspiratory lifting, all of which have already been described. Essentially the same movement as lifting the viscera may be executed with the patient in the knee-chest position. The masseur stands with his back to the patient's head, and reaching around the patient with one arm, drags the bowels upward during inspiration.

Intermittent Compression of the Uterus.—The preliminary movements being completed, one, or when possible, two fingers (index and middle fingers) of the left hand are introduced into the vagina and crowded upward behind the cervix, the uterus being first placed in perfect position, then lifted upward and forward as far as possible without giving too much pain. The extended fingers of the right hand are at the same time pressed upon the abdominal wall just above the pubes, so as to impinge upon the fundus, covering as large an area of the uterus as possible.

FIG. 19.

Showing head and leg raising forward.

Firm, intermittent pressure is then made, continuing two or three seconds, with intervals of one or two seconds, this being repeated six to twelve times. In this procedure the pressure of the external hand will fall chiefly upon the top of the fundus.

Digital Kneading of the Uterus.—The fingers of the left hand being returned to the first position behind the cervix, thus supporting the organ, the fingers of the right hand execute a circular digital kneading movement, beginning at the top of the fundus, and enlarging the circle until the fingers are made to press down the sides of the uterus and all about it.

FIG. 20.

Showing head and leg raising backward.

Lifting Movements.—The preceding manipulations will have completely freed the uterus from the overlying intestines so that the top of the fundus will be in immediate contact with the peritoneal surface of the anterior wall of the abdomen. By the combined action of the internal and external hands the uterus can now be freely lifted forward so that its form may be easily outlined by the fingers of the right hand. The action should be intermittent. After lifting it forward as far as possible without inconveniencing the patient the uterus is released, and allowed to drop down, then again lifted, the action being repeated six to twelve times, at intervals of two to three seconds the uterus being held forward for a like period.

Vibration of the Uterus.—While supporting the organ with the fingers of the left hand behind the cervix the thumb or one or more fingers of the right hand is applied to the top of the uterus, and fine vibratory movements are communicated to it. This is a powerful means of stimulating the uterine circulation.

Digital Kneading of the Appendages.—In pelvic massage the manipulations should not be confined to the uterus alone. The ovaries, tubes, and the broad and round ligaments may be massaged thus: After lifting the uterus well forward, freeing it from the overlying intestines, the fingers of the left hand are directed toward an ovary. Starting as low down as possible, firm pressure is made in an upward direction, while the fingers of the external hand are made to cooperate in an effort to grasp beneath the ovary and tube and lift them forward. At the same time, gentle digital kneading movements are executed, the pressure of the external (right) hand being directed toward the fingers placed internally.

Digital Kneading of the Round Ligaments.—The fingers in the vagina should be directed toward the inguinal canal while digital massage is executed by the fingers of the right hand, traveling in a curved line from the external ring along the side of Poupart's ligament and toward the fundus. The internal fingers will to some extent follow the movements of the right hand so as to compress the tissues between the fingers of the two hands.

Stretching of Adhesions and Kneading of Exudates.—When adhesions and exudates are present, firm pressure should be made directly upon the bands of adhesion or the masses of exudate with the tips of the fingers opening internally, counter-pressure being made externally, and, so far as possible, the morbid parts should be grasped between the fingers of the two hands and thus subjected to digital massage. Adhesions are also stretched by the lifting movements of the uterus previously described.

Nerve Compression.—The sacral plexus of the spinal nerves and several of the lowermost pairs of ganglia of the sympathetic are accessible to digital pressure through the vagina, and in appropriate cases these, as well as other nerve structures, may be stimulated by gentle compression in connection with other procedures. One of the largest nerve masses accessible to compression through the vagina is the hypogastric plexus, which is located on the anterior surface of the sacrum just below the promontory. A row of four or five sympathetic ganglia lie on either side of the median line just over the junction of the sacrum and the ilium, the anterior aspect of the sacro-iliac synchondrosis. A single ganglion (coccygeal) lies in front of the coccyx. Pressure made upon these points stimulates the ganglia and their branches, and by this means excites the circulation in the pelvic vessels. Nerve compression in this region as in other parts of the body must be applied with very great discretion. This procedure should never be employed in cases in which inflammation, active congestion, or excessive hyperesthesia exist. It is only appropriate in cases of passive congestion, atony, subinvolution, and general relaxation of the parts.

It is generally well to alternate some of the foregoing procedures, especially the lifting and kneading movements, instead of adhering closely to the order in which they have been given for the purpose of precise description. Upward deep kneading movements executed with the closed fist may be advantageously alternated with the other movements mentioned.

Massage of the Abdominal Muscles.—After the internal manipulations, the muscles of the lower abdomen and inner thighs should be gently massaged. The procedures most useful are the following, employed in the order named: Tapping, hacking, spatting, centripetal friction, and finally stroking.

Finishing Movements.—(*a*) Knee separating; breathing. The patient should inspire while separating the knees, and expire while closing them. The vigor of the exercise may be increased by making a slight resistance to the movements of both adduction and abduction. The movements should be made at the rate of ten to twelve per minute. (*b*) Hip raising, breathing in as the hips rise and breathing out as they sink. This movement should be repeated from four to eight times. The movements of the knee separating, hip raising, and breathing may be executed simultaneously.

The treatment should be concluded by having the patient turn upon the face, and then administer percussion, tapping, hacking, spatting, beating, and clapping over the sacrum and fleshy portions of the hips.

The following points should be carefully observed in the administration of pelvic massage:

1. Never administer pelvic massage to erotic patients, nor in cases of vaginismus, acute pyosalpinx, pelvic abscess, growing tumors of the uterus or ovaries, rectal ulcer, acute vaginitis, irritable urethra, or inflammation of Skene's glands, until these conditions have been removed. The best results are obtained in cases of subinvolution of the uterus, relaxed ligaments, recent exudates, and passive congestion with little sensitiveness. Kesch recommends that uterine massage be applied especially during menstruation, but does not give valid reasons for the recommendation. My opinion is very positive that massage should be discontinued during this period.

2. Before treatment have the patient thoroughly empty the bladder and bowels, employing an enema if necessary, or a coloclyster. A hot vaginal douche should also be administered.

3. No movements should be made with the hands used internally except with the ends of the fingers.

4. The force employed should generally be sufficient to produce slight pain.

5. In cases of flexion the flexion should, if possible, be straightened during the manipulation. In all cases of displacement the uterus must be restored to the proper position.

6. Care must be taken to have the patient breathe deeply and regularly during treatment.

I have devised an apparatus for kneading the abdomen (Fig. 17) and a tilting-table (Fig. 18) which elevates the pelvis as in the knee-chest position. I find the tilting-table especially valuable as a means of vasomotor gymnastics and draining the pelvis. This apparatus is of great service in all forms of pelvic congestion and in ovarian disease, uterine catarrh, displacement of the pelvic viscera, and in rectal disease of various forms. After spending a few minutes upon the tilting-table, rising and falling with its oscillations at the rate of about eight times a minute, patients suffering from the maladies named and similar ones almost invariably express themselves as experiencing a marked sense of relief. The effects of this mode of passive exercise of the blood-vessels are so agreeable that patients are inclined to continue the application as long as they are allowed to do so. This apparatus also aids in the restoration of the displaced viscera. This is accomplished by adding to the tilting-table a device by means of which the pelvis is lifted free from the table while the patient lies upon the face, thus causing the abdominal wall to sag downward. As the table is tilted, the patient is lifted into such a position as to cause gravity to make an upward (in relation to the normal position) pull upon the viscera of the trunk.

I find Swedish gymnastics of various forms especially serviceable in correcting those abnormal bodily shapes which favor the development of pelvic disease, and in shortening and strengthening weak abdominal muscles—two things which I consider most important in the curative treatment of pelvic displacements. Those movements are especially useful which act upon the muscles of the trunk. The accompanying cuts show a few of those which I have found most serviceable. (Figs. 19, 20.) Some fourteen years ago I visited Stockholm, Sweden, for the purpose of becoming acquainted with this system of gymnastics which is universally acknowledged to be the most thoroughly scientific of all. Since that time I have made constant use of it on an extensive scale, and I am fully persuaded that it is one of the most essential and important factors in the radical treatment of curable pelvic disorders.

Light calisthenics, especially such as bring into play the muscles of respiration, are of the highest value as a measure for building up the patient's general health.

Swimming I regard as especially helpful in this class of cases provided, of course, that the exercise can be practised under favorable conditions. The enforced and vigorous action of the adductor muscles of the leg and of the muscles of the back during swimming is highly conducive to the correction of one of the fundamental causes of visceral prolapse. I might dwell at considerable length upon the details of the methods of treatment referred to, but space forbids. I will only add that the results obtained during the last twenty years in the treatment of many thousands of women suffering from chronic pelvic disorders have been in the highest degree gratifying and encouraging. Scores of women previously sentenced to submit to surgical procedure of various sorts have by the measures outlined been enabled to escape from unnecessary and mutilating operations, and are now in the enjoyment of good health.

In conclusion, I wish to enter the earnest plea that the gynecologist in the practice of his specialty shall cease to fix his eye so exclusively upon the organs which occupy the pelvis, but that he shall extend the domain of his investigations and therapeutic endeavors to the organs of the adjacent cavity, the abdominal viscera, giving particular attention to the sympathetic nervous system. Indeed, must it not be conceded that the gynecologist is only prepared to deal intelligently with the morbid conditions which may manifest themselves in the pelvis, when he has thoroughly investigated every region and function of his patient, and that his supreme effort should then be, not simply to cure some pelvic disorder compre-

hended under some specific name, but to restore to health and physical soundness the whole system; in other words, that he shall undertake to cure his patient rather than her malady?

CLINICAL MEMORANDUM.

A FATAL CASE OF DIFFUSE RECURRENT LEPTOMENINGITIS CAUSED BY OTITIS MEDIA.

BY GEORGE H. POWERS, M.D.,
OF SAN FRANCISCO.

THE patient, a man aged thirty-five years, and in splendid physical condition, called me early on the morning of July 30, 1897, having been suffering with excruciating pain in the right ear during several hours of the night. He had been swimming—a form of exercise in which he frequently indulged—on the 28th, and began to have moderate trouble with his ear on the 29th, attributing it to the effect of the water which he had taken into his mouth and nose, as he had had a previous experience of the same kind. On the former occasion he had otorrhea during three weeks, from which he recovered with no sequelæ except a slight deafness in the affected ear. During the eighteen months or more which intervened between the first and second attack he was said to have had no symptoms whatever, but since his death I have learned from his business associates that he had for some time shown unwonted irritability and occasionally a sort of obstinacy quite foreign to his previous habit.

At my first visit I found a copious discharge of bloody serum from the ear with hardly a trace of pus. He suffered from severe cephalalgia, but there was no special tenderness in or about the ear, and no swelling.

Thorough cleansing of the meatus with dry cotton relieved the pain in the head remarkably, and with a dose of antikamnia, 10 grains, he slept some hours. At noon I was again summoned, and found the pain quite as great as before. After cleansing the meatus I found a small sac distending the skin anteriorly and superiorly which I incised, and thus released a quantity of blood and serum, but no pus. Again he was greatly relieved. At 4 P.M. the pain had returned to some extent, but was not as severe as before, and again it was relieved by a simple dressing. At 6 P.M. I found him asleep, and did not rouse him. At 8.30 A.M., July 31st, I was hastily summoned, and found the patient struggling with members of the family who were trying to keep him in bed, unable to comprehend when spoken to, eyes staring, pupils dilated moderately, pulse about seventy and very full. I sent at once for Dr. J. R. Laine, the consulting surgeon of the railroad company by which the patient had been employed, who responded, and with me took charge of the case, confirming the diagnosis of meningitis.

The discharge from the ear was still a sanious fluid, and there was no swelling or apparent tenderness about the ear or the mastoid, but in order to get an examination, otherwise impossible on account of the constant motion of the patient, we gave him chloroform and freely incised the membrana tympani, but without revealing any pus or giving any relief. Proper treatment for the condition of meningitis was at once instituted and another consultation arranged to be held at noon, then only ninety minutes away, but when we again reached his bedside we found that the patient had just expired without regaining consciousness.

So sudden a death demanded a *post-mortem* examination, which was made by Drs. Philip King Brown and Clarence Quinan, and clearly showed that no means we could have employed, operative or otherwise, could have saved life, there being extensive disease of the inner table of the skull resulting from a former attack of otitis media, lighted up and leading to a fatal result by bacteria introduced on the occasion previously mentioned, probably from the water in which the patient was bathing.

Autopsy.—External examination of the head revealed some discoloration of the skin, most pronounced behind the right ear. The blood-vessels of the scalp were injected, and bled slightly when incised. The outer table of the skull appeared to be normal. The vault of the cranium was now removed, the inner table of which also appeared to be normal. The cerebrum and cerebellum having been removed, inspection of inferior half of the skull revealed the following conditions: An old fracture line crossed the posterior third of the squamous portion of the temporal bone, its direction being nearly vertical from above downward and a little forward. The outer table of the skull over the fracture line exhibited several linear openings from 3 to 5 mm. in length. These were only seen after removal of the pericranium. The portion of the skull removed with the right temporal bone did not include the entire length of the fracture. The fracture corresponded very closely to a line drawn from the right parietal eminence to a point about one-quarter of an inch in front and a little above the right external auditory meatus, where it terminated, the fracture line crossing the temporoparietal suture about one and one-quarter inches in front of the posterior angle (inferior) of the right parietal bone. At the lower (temporal) end of the fracture the skull was very thin and exhibited two linear openings.

On the inner table a deep groove corresponded to the fracture line and bounded anteriorly a circumscribed area of necrosed bone covered with numerous exostoses. This area of necrosis covered the entire posterior third of the squamous portion of the temporal bone, and extended upward upon the adjacent parietal bone more than an inch above the suture line; below it extended over the external third of the anterior surface of the petrous portion of the temporal bone as far forward as a point corresponding to the superior semi-circular canal. Posteriorly, the superior border of the sigmoid groove of the lateral sinus sharply defined the area of bone necrosis. By measurement the bone was found to be affected a distance of about two inches from above downward and one inch from before backward.

On section of the temporal bone through the upper third of the tympanum that cavity was found to be filled with blood-clot, as was also the mastoid antrum. The malleus was still adherent to the remains of the membrana

tympani, which amounted to little more than a ragged fringe about the annulus tympanicus.

No recognizable quantity of pus was found either in the tympanic or mastoid cavities; the portion of the mastoid process exposed in this section was somewhat injected, but otherwise appeared to be normal. The cavity of the antrum was evidently continuous with the lower posterior part of the necrosed inner table (that is, the uppermost pneumatic cells underlay this portion).

The blood-vessels of the dura mater were engorged with fluid blood. Very little blood was found in the superior longitudinal sinus. Over an area corresponding to the necrosed bone the dura was thickened. Over the entire anterior two-thirds of the right hemisphere as well as over the middle lobe of the left hemisphere the pia was quite opaque, of a yellowish-white color, an abundant purulent exudate covering the convolutions.

Horizontal serial sections of the right and left hemispheres showed that the arteries of the cerebrum ovale, major and minor, were injected, punctate hemorrhage following incision. The white matter appeared to be normal. The lateral ventricles were normal, as was also the choroid plexus. Removal of the corpus callosum and fornix revealed no abnormalities. The venæ Galeni were somewhat engorged; third ventricle normal. The sections were continued on down to the divergence of the crura cerebri. The corpora striata and internal capsules were normal on both sides. The arteries of the base were perfectly normal. They did not contain much blood, and what little was found was fluid.

Cultures were taken as follows: (*a*) Of the cerebrospinal fluid; (*b*) of the fluid in the cavity of the tympanum; (*c*) of the exudate on the hemispheres.

Culture (*a*) was a pure culture of the streptococcus pyogenes aureus.

Culture (*b*) was an almost pure culture of the streptococcus pyogenes. Over ninety per cent of each colony was made up of this organism. A single colony of the staphylococcus pyogenes aureus was found, and also a single colony of bacilli, both of which were probably accidental inhabitants of the cavity.

Culture (*c*) was a pure culture of the streptococcus pyogenes aureus.

MEDICAL PROGRESS.

Treatment of Adenoids During the First Year of Life.—CUVILLIER (*Rev. de Therapeut.*, October 15, 1897) recommends that pharyngeal or postnasal adenoids, during the first year of life, be treated medically before instituting their surgical removal. He finds that salves and powders are less serviceable than the instillation into the nasal cavities of a few drops of mentholated (1 to 60) or resorcinated oil (1 to 25 or 1 to 50) while the head is held backward. Four or five drops should be introduced into the nostrils and this treatment repeated every three hours. Cotton saturated with a borated solution of glycerin may be used in each nostril as a tampon to loosen the mucus collections. These maneuvers should be made with prudence in order to avoid the possibility of laryngeal spasm. When, notwithstanding this treatment, coryza frequently occurs, the adenoid growth should be removed, the necessary procedure being no more serious at this age than at any other. No anesthetic is required. The operation should be quickly performed, with an adenoid forceps bent almost at a right angle and very short, corresponding to the size of the nasopharyngeal cavity of an infant of this age. It is better to make only one or two bites with the forceps at a time, and, if necessary, the procedure may be repeated once or twice at a later date. Antisepsis of the nasal cavity may be secured by the instillation of mentholated or resorcinated oil, the latter being less painful than the former. The results after operation are excellent. Respiration is re-established through the nose, nutrition becomes regular, and the growth of the infant resumes its normal course.

Shall We Return to Antisepsis?—MIKULICZ (*Deut. med. Wochenschr*, June 24, 1897), in a recent article, takes the position that as it is practically impossible to secure perfect asepsis of the hands, it would be better if surgeons would return to the use of antiseptics which have been so generally discarded in these latter days. In hospital work he advocates the use of thin white cotton gloves, known to the trade as "footmen's thin gloves," which should be sterilized, several pairs being used during the course of an extensive operation. The hands should, of course, be rendered as free from germs as possible. Moist towels should be worn over the nose and mouth, as it has been found that even in quiet speech, particles of saliva are ejected from the mouth. Thus two important sources of infection, the hands and the breath, are eliminated as far as possible. From the point of view of the bacteriologist many spectators are objectionable at operations.

The Segregation of Lepers.—IMPEY writes to *The Medical Week*, October 15, 1897, calling attention to the unnecessary expense and annoyance of the detention of anesthetic lepers, who cannot, in his opinion, communicate the disease to others, since the bacilli of this disease are not found in any tissues except the nerves. For practical purposes all lepers should be divided into two classes: (1) tuberculous and mixed leprosy, and (2) pure anesthetic leprosy.

In his own country, Cape Colony, Impey states that there are, so far as known, about 2000 cases of leprosy, not more than one-third of which are of a tuberculous or mixed type. Anesthetic leprosy is of only about four-years' duration, and to herd the cured and non-contagious patients with the dangerous ones, is a wrong to them and an unnecessary expense to the State, and it also renders it almost certain that some of the patients will, sooner or later, contract the disease in the tuberculous form.

Fined for Endangering the Public Health.—A woman in Belfast, Ireland, was recently fined for allowing her niece to go to school and attend an examination while suffering from typhoid fever.

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SATURDAY, DECEMBER 25, 1897.

THE QUARANTINE BILL BEFORE CONGRESS.

IN another column is presented in full the bill recently introduced in the United States Senate by Senator Caffery of Louisiana, embodying the recommendations upon this subject made by the President in his Message and by the Secretary of the Treasury. Senator Caffery comes from the State which suffered most severely during the recent epidemic of yellow fever not only in the number of cases and deaths which it occasioned, but also in the paralysis of its commerce and resulting financial distress. He knows from personal experience and familiarity with the views of his constituents the necessity of uniformity in the quarantine laws and of a strong arm of authority with which they may be administered. Although Louisiana can justly boast of one of the best quarantine organizations of all the Gulf States, she suffered from the want of an equally efficient quarantine service in the State which happened to be her nearest neighbor. Moreover, Louisiana is the State from which came the greatest opposition to the former National Board of Health. Indeed, it was through the war waged upon that body by the local quarantine authorities of Louisiana that its efficiency was impaired and its sinews were cut. The recent experience has evidently wrought a change of heart. What she asks now is to be protected from her friends—her neighbors—by the strong hand of the Federal Government. This can only be accomplished by a uniform law applicable to all States, the administration of which rests in a centralized organization. The aforesaid bill makes the National Quarantine as administered by the Marine Hospital Service paramount to all local quarantine boards, so that no ship can enter any port without submitting to the regulations of the Treasury Department, as administered by the Marine Hospital Service, nor can any ship be detained for quarantine inspection after it has been passed by the Marine Hospital authorities. The bill also provides that whenever yellow fever, cholera, plague, or typhus fever has passed the quarantine of the United States, or in any manner any one of these diseases has gained entrance or has appeared within the limits of any State or Territory, the quarantine regulations of the United States, prepared under the direction of the Secretary of the Treasury, shall be supreme and have precedence of State or municipal laws, rules, or regulations. The President is authorized to enforce the same within the limits of any State or Territory, to control the government of vessels, railroad trains, vehicles, or persons within any State or Territory, to prevent these diseases from spreading from one State or Territory to another State or Territory, and to prevent unnecessary restrictions upon interstate commerce.

The people of the States recently afflicted by the scourge of yellow fever cannot shake off the horrors and hardships of that calamity, and look forward with dread and apprehension to the return of warm weather. The Marine Hospital Service is already organized on a sufficiently comprehensive basis to enable it, promptly upon the enactment of this bill, to extend its equipment and be ready at the first indication of any awakening of the dread disease to fulfil efficiently all the requirements of its new functions. By the passage of this bill without undue delay, the existing confidence in the uniform vigorous enforcement of quarantine and of sanitary regulations which has characterized the work of the Marine Hospital Service, will restore a feeling of security to the business interests of the South and of safety to the people.

Congress has before it for enactment this winter no measure of more pressing urgency than this Quarantine Bill introduced by Senator Caffery.

THE REGULATION OF THE PRACTICE OF MIDWIVES IN NEW YORK.

IT is gratifying to know that at last there is an encouraging prospect of a general law being enacted at Albany this winter regulating the practice of midwives. From the year 1808, when a committee of the Medical Society of the County of New York waited upon Mrs. Louisa Kastner, then unwarrantedly advertising herself as a midwife authorized by the Society, and requested her to submit to examination, down to the present time, the practice of midwifery by uneducated persons and the horrible fatality attending it has been frequently discussed by that body; committees instructed to draft legislative bills in reference thereto have been repeatedly appointed, but their efforts have never resulted in the enactment of a general law.

It is difficult to understand why such an important branch of medicine should ever have been differentiated from other branches and its practice lawfully placed in the hands of an uneducated class. The explanation of this paradoxical condition of affairs probably lies in the false dictum, "Labor is a physiologic process." Quoting from an editorial by Dr. E. P. Davis of Philadelphia, which recently appeared in these columns, we reiterate the sentiments of this writer: "The dangerous half-truth, 'Labor is a physiologic process,' has shielded the indolence and greed of many obstetric teachers." The same trite and moss-grown principle has been equally efficacious in the protection of the ignorant midwife—at the sacrifice of thousands of lives.

The recent awakening of the profession to the possibility of securing relief by legislation from many professional and social abuses has stimulated the perennial effort to regulate this important department of obstetric practice. The Society of Medical Jurisprudence at its meeting in November appointed a committee to consider and report to the Society what legislation, if any, is desirable to regulate the practice of midwives in this State, and what steps this Society should take to that end. This committee has drafted a bill vesting in the Regents of the State University the power to license midwives, upon the recommendation of medical examiners having in turn power to prescribe time, place, and character of examination; and vesting in the State and local Health Boards power to prescribe the sanitary safeguards under which the practice of midwifery shall be carried on. The right to continue their avocation, of those midwives who have already practised long enough to acquire some experience and clientele, is recognized. To provide for this two classes of midwives are created in the proposed law: First class, embracing those who after a year's study shall show their competency by examinations; second class, consisting of those offering evidence of no better qualifications than their actual practice during two years prior to the law's enactment.

A covert but prevalent abuse attending the practice of midwives is the prevalence in their ranks of professed abortionists. The licensing and registration of midwives in accordance with the requirements of the proposed law will do much to raise the standard both morally and mentally of those entering this calling. But even then the desirability of absolutely prohibiting midwives from attending cases of abortion or miscarriage is worthy of careful consideration with a view of incorporating it in the bill mentioned. Those members of the committee engaged in collecting statistics to accompany the bill when introduced at Albany may find valuable data in the field of investigation suggested above to convince the legislature of the necessity for the prompt enactment of the measure.

THE PUBLIC PRESS AND THE ACADEMY OF MEDICINE.

SOMETHING over a year ago, a paper read before the Ophthalmological Section of the Academy subsequently appeared, with a photograph of the author, in several of the daily papers. The author, being questioned, denied all responsibility for the occurrence.

On the 18th of January, at a meeting of the same Section presided over by Dr. Pooley, attention was directed to the presence of reporters, and the disposition of the matter being left to the Chairman, he decided that they should be requested to retire. One of the gentlemen as he went out begged to be allowed to say on behalf of himself and his companions, that they were not there *sub rosa*, but in obedience to orders from their managing editors, who had received folders announcing the meeting.

The Section, after discussion, passed a resolution to the effect that "The Ophthalmological and Oto-

logical Section desires an expression of opinion from the Academy of Medicine as to the desirability of having reporters present at the meetings of the Academy and its Sections."

At the regular meeting of the Academy of February 4th, a motion was carried that "each Section should decide for itself the question as to the desirability of admitting reporters," and the astonishing fact to which we desire to call attention is that at this same meeting a motion was *lost* to the effect "that folders of the Academy should not be sent to the daily papers." This action admits of but one construction—that a majority of the members of the Academy of Medicine would not like to lose any opportunity of giving their opinions and papers for advertising purposes to the public press. Let us hope that it is only necessary to have the attention of the members of the Academy drawn to the subject to insure reconsideration and proper action.

ECHOES AND NEWS.

Doctor's Coachman Turns Practitioner.—At an inquest held in Manchester, England, as to the death of an infant aged three days, it appeared in the evidence that the mother had been delivered by a man who was "acting as assistant to a medical man." In answer to a question from the coroner, who recognized him, the man admitted that he was *coachman* to the medical man mentioned.

A Correction.—Through a misunderstanding between the printers and the editorial office, Dr. W. H. Thomson was credited in the last issue of THE NEWS as visiting physician to New York, Bellevue, and Roosevelt Hospitals. Dr. Thomson has no connection with the New York Hospital, and has recently resigned his position in Bellevue. He should, therefore, be credited with Roosevelt Hospital only.

English Criticism of "Degree-Shops."—A correspondent writes to the *Lancet* (London) to say that he knows of an instance where an American university conferred the degree of Doctor of Medicine on a layman who had merely presented a thesis. In reply, that journal remarks that "either the institution has been imposed upon or is a bogus university—a degree-shop—of which there were once many in the States."

A Nurse's Quarantine.—A nurse who had been caring for a child ill with scarlet fever in Liverpool, England, recently brought suit against the father of the child for one week's additional wages and expenses for the period during which she remained in quarantine after leaving the case. The rules of the nurse's home where she was employed would not permit her to accept another engagement until she had been in quarantine seven days. The judge gave a decision allowing her the amount claimed on the ground that the rule above alluded to was a good one and clearly to the interests of the public.

New York State Board of Health and Antitoxin.—The board of Health of the State of New York is endeavoring to adopt means to improve the quality of antitoxin serums manufactured in this country, and to this end it proposes to have all serums offered for sale in this State submitted to a bacteriologic examination in the laboratory of the Health Department of New York City before being placed on sale. This is the plan pursued in Europe where every ounce of serum is inspected by duly authorized officials in the State laboratories. Dr. Herman M. Biggs, bacteriologist of the Health Department of New York City, states that as a result of investigations he found several of the samples of serum submitted to him unfit for use owing to the occurrence of decomposition. Some of it was also below the standard strength by as much as fifty units.

SPECIAL ARTICLE.

THE NEW QUARANTINE REGULATIONS.[1]

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That "An Act granting additional quarantine powers and imposing additional duties upon the Marine Hospital Service," approved February fifteenth, eighteen hundred and ninety-three, be amended by striking out the following words in section one: "And with such rules and regulations of State and municipal health authorities as may be made in pursuance of, or consistent with, this Act," and striking out section three and inserting the following in the place of said section:

"SEC. 3. That immediately after the passage of this Act the Secretary of the Treasury shall make such rules and regulations as are necessary to prevent the introduction into the United States of any infectious or contagious disease from any foreign port or place, or the spread of such diseases from one domestic port to another, and such necessary rules and regulations as shall be observed by vessels or vehicles departing from foreign ports, or places for ports, or places in the United States, to secure the best sanitary condition of such vessels or vehicles, their cargoes, passengers, and crews, which rules and regulations shall be published, and communicated to, and enforced by, consular, quarantine, and customs officers of the United States, and the State and local quarantine officers of the United States. All rules and regulations made by the Secretary of the Treasury shall operate uniformly, so far as climatic conditions will justify, in the interest of security against the introduction or spread of said infectious and contagious diseases, and shall not discriminate against any port or place. None of the penalties herein imposed shall attach to any vessel from a foreign port, or owner or officer thereof, until a copy of

[1] A bill introduced by Senator Caffery in the Senate of the United States, December 9, 1897, read twice and referred to the Committee on Public Health and National Quarantine, and known as Senate Bill No. 2680.

this Act, with the rules and regulations made in pursuance thereof, has been posted up in the office of the consul, or other consular officer of the United States, for ten days, in the port from which said vessel sailed, and the certificate of such consul or consular officer, over his official signature, shall be competent evidence of such posting in any court of the United States. Nor shall the penalties imposed by this Act attach to any common carrier or officer, agent, or employe of any common carrier, crossing the border of the United States, until a copy of this Act, with the rules and regulations made in pursuance thereof, has been published and made publicly known.

"At any port or place in the United States where the Secretary of the Treasury shall deem it necessary for the prevention of the introduction of contagious or infectious disease from a foreign port or place that incoming vessels, vehicles, or persons shall be inspected by a national quarantine officer, such officer shall be designated or appointed by the Secretary of the Treasury, on recommendation of the Surgeon-General of the Marine Hospital Service, and at any such port or place no vessel, vehicle, or person from a foreign port or place shall be admitted to entry or enter without the certificate of said officer that the United States quarantine regulations have been complied with.

"Any vessel sailing from any foreign port without a United States consular bill of health, and arriving within the limits of any collection district of the United States, and not entering or attempting to enter any port of the United States, shall be subject to such quarantine measures as shall be prescribed by regulations of the Secretary of the Treasury, and the cost of such measures shall be a lien on said vessel, to be recovered by proceedings in the proper district court of the United States, and in the manner set forth above as regards vessels from foreign ports without bills of health and entering any port of the United States.

"National quarantine stations now in operation shall be conducted in accordance with the provisions of this Act, and the Supervising Surgeon-General, with the approval of the Secretary of the Treasury, is authorized to designate and mark the boundaries of the quarantine grounds and quarantine anchorages for vessels, which are reserved for use at each United States quarantine station; and any vessel, or officer of any vessel, or other person, trespassing upon such grounds or anchorages, in disregard of the quarantine rules and regulations, shall be deemed guilty of a misdemeanor and subject to arrest, and, upon conviction thereof, be punished by a fine of not more than three hundred dollars, or imprisonment for not more than one year, or both, in the discretion of the court.

"And any master or owner of any vessel, or any person violating any rule or regulation made in accordance with this Act, relating to inspection of vessels, or relating to the prevention of the introduction of contagious or infectious disease; and any master, owner, or agent of any vessel making a false statement relative to the sanitary condition of said vessel or its contents, or as to the health of auy passenger or person thereon, shall be deemed guilty of a misdemeanor and subject to arrest, and, upon conviction thereof, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than one year, or both, in the discretion of the court.

"Medical officers of the United States, duly clothed with authority to act as quarantine officers at any port or place within the United States, and when performing such duties, are hereby authorized to take declarations and administer oaths in matters pertaining to the administration of the quarantine laws and regulations of the United States.

"The Secretary of the Treasury shall, whenever in his judgment it is necessary, make rules and regulations to prevent the introduction of infectious or contagious diseases into one State or Territory, or the District of Columbia, from another State or Territory, or the District of Columbia, and when such rules and regulations have been made they shall be promulgated by the Secretary of the Treasury and enforced by the Sanitary authorities of the States and municipalities, when the State or municipal authorities will undertake to execute or enforce them; but if the State or municipal authorities shall fail or refuse to enforce said rules and regulations, or other rules and regulations made under the provisions of this Act, the President shall execute and enforce the same, and adopt such measures as in his judgment shall be necessary to prevent the introduction or spread of such diseases, and may detail or appoint officers for that purpose.

"Whenever yellow fever, cholera, plague, or typhus fever has passed the quarantines of the United States, or in any manner any one of these diseases has gained entrance, or has appeared, within the limits of any State, Territory, or the District of Columbia, the quarantine regulations of the United States, prepared under the direction of the Secretary of the Treasury, shall be supreme and have precedence of State or municipal quarantine laws, rules, or regulations, and the President is authorized to enforce the same within the limits of any State, Territory, or the District of Columbia, and to control the movements of vessels, railway trains, vehicles, or persons within any State, Territory, or the District of Columbia, to prevent these diseases from spreading from one State, Territory, or the District of Columbia, to another State, Territory, or the District of Columbia, and to prevent unnecessary restrictions upon interstate commerce; and whenever, in accordance with the rules and regulations made as herein authorized to prohibit or permit the movement of vessels, railway trains, and vehicles, or transportation of persons, prohibitions or permits have been made or granted, any person violating said prohibition or permit shall be deemed guilty of a misdemeanor, and shall be subject to a fine of not more than one thousand dollars, or imprisonment for not more than twelve months, or both, at the discretion of the court; and any violation of said prohibition or permit shall be reported to the United States District Attorney for the district in which the offense has been committed, who shall thereupon institute necessary pro-

ceedings for the recovery of the penalty herein imposed."

That section six of said Act shall be amended to read as follows:

"That on the arrival of an infected vessel at any port not provided with proper facilities for treatment of the same, the Secretary of the Treasury may remand said vessel, at its own expense, to the nearest national or other quarantine station where accommodations and appliances are provided for the necessary disinfection and treatment of the vessel, passengers, and cargo; and after treatment of any infected vessel, or inspection of any vessel not infected at a national quarantine station, and after certificate shall have been given by the United States quarantine officer at said station that the vessel, cargo, and passengers are each and all free from infectious disease, or danger of conveying the same, said vessel shall be permitted to enter and admitted to entry at any port of the United States named within the certificate. But at any ports where sufficient quarantine provision has been made by State or local authorities, the Secretary of the Treasury may direct vessels bound for said ports to undergo quarantine at said State or local station."

That section eight of said Act shall be amended to read as follows:

"That whenever the proper authorities of a State shall surrender to the United States the use of the buildings, grounds, and disinfecting apparatus at a State or municipal quarantine station, the Secretary of the Treasury shall be authorized to purchase them at a reasonable compensation, or pay a reasonable rental for their use, if in his opinion they are necessary to the United States; and the expense of the said purchase or rental is made payable from the epidemic fund."

CORRESPONDENCE.

OUR PHILADELPHIA LETTER.

[From our Special Correspondent.]

AN IMPORTANT DISCUSSION OF THE MUNICIPAL CONTROL OF THE MEAT-SUPPLY—THE BLOCKLEY MEDICAL BOARD FOR 1898—DR. JOHN GUITERAS ON THE RECENT YELLOW-FEVER EPIDEMIC IN THE SOUTH—PHILADELPHIA COUNTY MEDICAL SOCIETY—THE RECENT OUTBREAK OF INFECTIOUS DISEASES.

PHILADELPHIA, December 18, 1897.

THE many recent flagrant offences in offering for sale diseased and unwholesome meats in some of the poorer districts of this city resulted in a public meeting at the College of Physicians, on December 6th, under the auspices of the Woman's Health Protective Association, to consider the subject of a better system of municipal meat inspection in this city. Among the experts in sanitation and hygiene who addressed the meeting were Dr. H. D. Gill of the New York City Health Department, who outlined in an interesting manner the methods in vogue in that city, and spoke of a number of improvements in the present defective system of inspection; Dr. D. E. Salmon, Chief of the Bureau of Animal Industry, Washington, D. C., who considered the questions of Federal control of meat-supplies, and the dangers arising from the distribution of diseased meats; Dr. Leonard Pearson of the Pennsylvania State Veterinary Sanitary Board, who described the almost perfect methods of inspection which prevail in many of the Continental cities, rendering it practically impossible for diseased meat to reach the consumer; Dr. Benjamin Lee of the Pennsylvania State Board of Health, who spoke of trichinosis, and its relation to disease in human beings; and Dr. A. W. Clement, State Veterinarian of Maryland, who dwelt on the subject of the widespread prevalence of tuberculosis in animals. The facts adduced at this meeting proved beyond contradiction the filthy condition of many of the city's slaughter-houses, and the criminal neglect of ordinary sanitary methods practised by many butchers and drovers in caring for and handling cattle, many of which are unfit for food, and served the important purpose of calling general attention to the prevailing lack of suitable meat-inspection in this, as well as in other cities. It may be added that it is highly probable that the corps of official meat-inspectors of Philadelphia, which now numbers but four (with over 100 slaughter-houses to look after), will be at once increased to a more adequate force.

The Department of Charities and Correction has announced the personnel of the Medical Board of the Philadelphia (Blockley) Hospital for the ensuing year, these appointments being as follows: Physicians—Drs. R. G. Curtin, J. H. Musser, F. P. Henry, W. E. Hughes, S. Solis Cohen, F. A. Packard, J. L. Salinger, Samuel Wolfe, James Tyson, T. G. Ashton, A. A. Eshner and Alfred Stengel. Surgeons—Drs. W. J. Hearn, L. W. Steinbach, J. B. Deaver, Orville Horwits, Ernest LaPlace, J. M. Barton, J. William White, Edward Martin, J. Chalmers DaCosta, and A. C. Woods. Obstetricians—Drs. B. C. Hirst, E. P. Davis, G. I. McKelway, J. M. Fisher, R. C. Norris. W. F. Haehnlen, E. L. Peck, and J. B. Shober. Neurologists—Drs. C. K. Mills, F. X. Dercum, J. Hendrie Lloyd, and C. W. Burr. Ophthalmologists—Drs. G. E. de Schweinitz, and C. A. Oliver. Dermatologists—Drs. H. W. Stelwagon and J. Albert Cantrell. Pathologists—Drs. John Guiteras and W. M. L. Coplin. Laryngologists—Drs. C. J. Seltzer and G. M. Marshall. Registrars—Drs. H. B. Allyn, B. F. Stahl, and J. H. Gibbon.

At a special meeting of the Pathological Society of Philadelphia, held December 9th, Dr. John Guiteras, the distinguished yellow-fever expert, who recently completed his investigations for the Government of the late epidemic of this disease in the South, was the guest of the Society, and delivered an important address on "The Yellow-Fever Epidemic of 1897." This epidemic, said Dr. Guiteras, was characterized by the mild character of its cases and by its unseasonable appearance, two factors which have proved no small obstacles to its differentiation from an outbreak of other febrile diseases, such, for instance, as dengue; these factors have also rendered probable a secondary outbreak a year hence. The speaker corroborated the general opinion of the mild character of the infection in the colored race, and drew attention to the fal-

lacy of the belief that a native population enjoy immunity from yellow fever; in fact, many of them are mildly attacked during infancy, when the nature of the illness is unrecognized. A characteristic feature of the beginning of a yellow-fever epidemic, he said, is an increase in the death-rate of the white population of a community, affecting special classes of the population, such, for example, as seamen, if the place is a seaport; coincidently with this, the health reports show a marked and unusual increase in deaths from such diseases as congestion of the brain and stomach, meningitis, nephritis, and bilious remittent fever, and by such diagnostic mistakes fatal yellow fever is often reported as some other disease, thus masking the real nature of the epidemic. Speaking of the specific cause of yellow fever, Dr. Guiteras drew attention to the morphologic and cultural characteristics possessed in common by Sanarelli's bacillus and the bacillus *x* of Sternberg, and pointed out that both micro-organisms had been found by their respective discoverers in very nearly the same percentage of cases. The claim made by Sanarelli is, however, considerably strengthened by the fact that he has been able to produce, by the injection of his bacillus into dogs, typical symptoms of the disease in these animals. The speaker, in discussing the clinical picture of yellow fever, placed emphasis upon the association of early albuminuria, lack of correlation between pulse and temperature, and the typical facies as an important diagnostic combination. At the close of his address Dr. Guiteras was tendered a reception at the University Club by the members of the Society.

At the last stated meeting of the Philadelphia County Medical Society, held on December 8th, a valuable communication on "The Effects of Digitalis in Producing Hypertrophy of the Heart," was made by Dr. H. A. Hare. The paper was based upon a series of experiments dealing with the action of this drug upon pigs, to which it was given in gradually ascending doses, and the effects noted during life, and after the death of the animals, which were killed within 4½ months. Ten pigs, from the same litter and of practically the same body-weight, were used in the experiments; five received tincture of digitalis in ascending doses from 10 to 50 minims twice daily during the period of observation, while the other five were used as "controls," and received nothing. All the "digitalis pigs" were livelier during life than the others, and also appeared to increase in size. After six weeks the ten pigs were killed, and it was found that the total weight of the five pigs which had received digitalis was twenty pounds more than that of the "control" animals, while their hearts together weighed 3¼ ounces more. The pathologic report, by Drs. W. M. L. Coplin and W. P. Reed, showed thickening of the ventricular walls, more marked in the left than the right side of the "digitalis hearts," with an increase in the diameter of the muscular fibers amounting to one-tenth more than those of the "control hearts." From the results of this investigation Dr. Hare concludes that digitalis is capable of producing hypertrophy in the normal heart (probably because of its special affinity for the pneumogastric nerves), and that, if given to an individual suffering with valvular disease with lost compensation, it must aid materially in inducing compensatory hypertrophy, in addition to its immediate stimulant action upon the circulatory apparatus.

Dr. James K. Young read a paper on "The Necessity of Making Accurate Measurements in Scoliosis," in which he deprecated the usual approximate method of recording such cases, and urged that instruments of precision be employed to obtain accurate tracings of the deviation of the spine. Dr. Young also demonstrated the application of the trolley scolisometer, Elkington's apparatus, Bradford's instrument, and other inventions of the same nature.

Dr. Lawrence Flick reported "Some Unusual Results in the Treatment of Pulmonary Tuberculosis," which he attributed to inunctions of europhen. Five patients with phthisis, three in the advanced, two in the incipient stage, were thus treated, in all there was marked improvement in both physical signs and symptoms; the incipient cases were pronounced free from physical manifestations of the disease. It should be noted that the patients, in addition to the europhen inunctions, received strychnin, gastric tonics, and very full doses of creosote.

Dr. H. E. Wetherill showed a number of *medical instruments of precision*, among which was a hygrometer upon which the speaker laid stress as being of value in recording the degree of moisture of different parts of the body in certain pathologic states.

The alarming increase in the mortality from diphtheria in certain sections of the city, of which mention was made in these columns last week, stirred the health authorities to the extent of inaugurating, in the affected districts, a general daily inspection of the throats of all public-school children, and of disinfecting with formaldehyd the infected school buildings and their furnishings. Investigation into the cause of the outbreak of enteric fever which occurred last week in a certain ward has led to the conclusion that the milk-supply was responsible for the increase in this disease. As compared to last week there were 11 more new cases of diphtheria reported for the week ending December 18th, the total being 139, with 32 deaths; there was a decrease of 15 in new cases of typhoid, of which the total was 110; and there was an increase of 7 in new cases of scarlet fever, with a total of 54. The total deaths from all causes were 451, or 50 more than last week. Of this total 112 were of children under five years of age.

TRANSACTIONS OF FOREIGN SOCIETIES

Paris.

THE FATE OF HETEROPLASTIC OSSEOUS GRAFTS—SEROUS PLEURISY ALMOST INVARIABLY TUBERCULOUS—LOCATION OF PROJECTILES IN THE HEAD BY RADIOGRAPHY—TYPHOID FEVER NOT PRODUCED BY EATING OYSTERS—FOREIGN BODIES IN THE ESOPHAGUS WITHOUT SERIOUS SYMPTOMS.

DUBAR reported to the Academy of Medicine, November 16th, the result of a resection of the right wrist for tuberculosis in a girl aged ten years. In order to make the joint firmer, small *osseocartilaginous fragments from the femur of a puppy were inserted in place*

of the bones which had been removed. There was a good recovery, with a painless, firm, and movable wrist. A radiograph was taken to ascertain what became of the fragments of bone, and they were seen to be fixed in the midst of newly formed fibrous tissue, having slightly increased in size.

LE DEMANY has determined from the examination of 80 cases of pleurisy, 50 of them being primary, that the rheumatic diathesis and exposure to cold play almost no rôle in the production of the primary disease. *Inoculation of guinea-pigs with the exudate from 55 pleuritic patients was followed in 47 instances by tuberculosis.* In 8 cases the result was negative. Nevertheless, in four of these, the clinical evidence showed that the pleurisy was of a tuberculous nature. The conclusion was reached that the only serofibrinous pleurisy of microbic origin is the tuberculous. Other microbes found in the pleura merely determine the occurrence of purulent pleurisy.

At the session of November 23d, MAREY described experiments in radiography with Contremoulin's apparatus in order to determine the *exact situation of projectiles in the head.* The method has also been employed in the living, with complete success, in two cases of gunshot wound. LE DENTU described one of these operations. The patient shot himself in the right temple with a revolver. A radiograph showed that the projectile was situated in the frontal lobe 28 millimeters from the cutaneous surface. An opening was made in the bone at the spot indicated, and the bullet found at a distance of 15 millimeters from the surface of the brain, and was extracted without difficulty.

At the session of the Academy of Sciences, November 8th, SABATIER, DUCAMP, and PETIT described their efforts to determine *whether oysters can be the means of producing enteritis due to the coli or typhoid bacillus.* The results of their investigations showed that these germs are not found in oysters, even if the oyster-beds are situated in water contaminated with sewage. Furthermore, oysters into which these bacilli were artificially introduced were invariably found to be free from them twenty-four hours later. The idea, therefore, that typhoid fever may result from the ingestion of these bivalves, is not worthy of credence. This view is sustained in a practical way by statistics, which show that the number of cases of typhoid fever in the town of Cette does not exceed the average for towns of similar size, although its inhabitants eat about two million oysters per year.

MONOD reported before the Surgical Society, November 10th, the details of a *case of foreign body in the rectum,* which he was able to extract without having recourse to any preliminary operation. The foreign body in this case was a glass bottle which the patient was in the habit of introducing into the rectum neck first. He always tied a string to it so that he could pull it out at will, but one day the string broke and the bottle remained in the rectum. By pressing with one hand on the hypogastric region, Monod was able, without difficulty, to pull the bottle out of the rectum with the fingers of the other hand. In the majority of cases, foreign bodies, even of the largest size, may be removed from the rectum by the natural channel. This surgeon collected reports of 33 cases, in 27 of which extraction was effected without operation. Six of these patients died, but only 3 deaths were attributable to the maneuvers of extraction. An incision in the posterior wall of the rectum is sufficient in the most difficult cases. Resection of the coccyx being only exceptionally indicated. When the foreign body has made its way toward the upper part of the rectum celiotomy should be performed.

At the session of November 17th, MICHAUX described a *case of subphrenic abscess on the right side* and so high up that it was thought that two collections of pus were present, one in the pleural cavity and the other below the diaphragm. A large thoracic clamp was made and turned upward, thus disclosing the entire cavity of the abscess. The patient improved for a time, but died within a month. The autopsy showed that the lesion was a suprahepatic peritoneal tuberculosis. PEYROT described a subphrenic abscess also situated above the liver, and which he had drained by operation. Exploratory puncture of the liver showed that this organ contained a hard mass, the nature of which could not be determined; at the autopsy it was found to be a calcified hydatid cyst. ROUTIER mentioned two cases of subphrenic abscess in which the symptoms were puzzling, and in both instances resection of the costal wall was followed by cure.

HARTMANN resected the appendix in a patient subject to recurrent attacks of inflammation of this organ, and found its cavity to be entirely obliterated in the middle. This gave an opportunity to compare the *virulence of the microbes in the obliterated terminal portion with those in the permeable portion* next to the cecum. In both portions coli bacilli were found, but while cultures made from the contents of the permeable portion exerted no noxious action upon guinea-pigs, cultures from the closed portion were extremely virulent, sufficing to kill a guinea-pig within thirty-six hours.

RENDU communicated to the Medical Society of the Hospitals, November 12th, the details of a case of *infectious gonorrheal rheumatism with death from endopericarditis.* The patient sought treatment for pain in the abdomen. Vulvitis, urethritis, or vaginitis were not present, but only slight uterine congestion. Some days later, symptoms of septicemia became well marked. A little liquid withdrawn from the cavity of the cervix uteri, entirely serous and transparent, was examined bacteriologically and found to contain gonococci in large numbers. Peri-arthritis of the left elbow developed, and pus from the resulting abscess also contained gonococci; no other microbes were found. Endocarditis and pericarditis, also of gonococcic origin, developed and terminated the life of the patient.

At the session of November 19th, VARIOT mentioned two cases in which a foreign body remained in the esophagus of a child a long time, in one case a whole year, meanwhile producing no symptoms except an occasional fit of coughing. RENDU knew of a similar case in which a child twelve years of age claimed to have *swallowed a piece of money about the size of a dime.* Nobody believed him, as there were at first no morbid symptoms.

Later, attacks of dyspnea appeared, but it was only with the help of radiography that the presence of a coin in the middle of the esophagus was clearly determined. These cases show the necessity for this method of examination when patients present a similar history.

At the session of November 26th, CAUSSADE announced that experiments made by DIEULAFOY and himself prove that the *virulence of the coli bacillus is greatly increased by its growth in a closed appendix;* and this is true not only for inoculations made with the bacillus itself, but also of those made with its toxins.

At the session of the Biological Society, November 13th, CHABRIE read a paper upon the *elimination of potassium salts in nephritis.* Six patients were observed with the following results: There was a diminution of the potassium salts of the urine, amounting, in one patient, to two-thirds of the normal quantity, in two others, to one-third of the normal quantity, while the other three exhibited variable potassium discharges coincident with improvement in condition, and following the employment of a milk diet. It appears from these observations that potash plays an important part in Bright's disease, and that the use of articles of food which contain these salts in large proportions should be absolutely forbidden to such patients.

At the session of November 20th, HOBBS said that a wet-nurse, aged twenty-three years, died six days after the beginning of a *diarrhea accompanied by the classic symptoms of cholera.* The bacteriologic examination of the stools showed the presence of a germ presenting all the characteristics of the coli bacillus. Its virulence was great, ten drops of a bouillon culture being sufficient to kill a guinea-pig within eighteen hours. The same bacillus was found in the kidney, intestines, spleen, and breasts of this patient.

At the session of the Therapeutic Society of November 10th, BARDET said that while a *chemic or mechanical irritation may set up mucomembranous colitis,* in the majority of cases, especially in men, this disease is due to hyperacidity. It is, therefore, necessary in these cases, to examine into the condition of the stomach. MATHIEU said that in cases of genuine mucomembranous colitis, almost the whole intestine is affected, and not alone the sigmoid flexure as some observers have claimed. It has also been stated that this disease is to the intestine what eczema is to the skin, being apparently like the latter affection, increased by irritation of the affected locality or of its neighborhood, by emotion, fatigue, or visceral disturbances of any kind.

At the session of November 24th, a note was read from MONCORVO describing the result of the *treatment of chyluria in the tropics* by means of the administration of ichthyol. The dose used was from 7 to 20 grains daily. A marked improvement soon followed, and patients who had been treated without benefit with other drugs were completely cured by the use of ichthyol.

Portable Piano for Invalids.—An English firm has designed a small portable piano, which is suspended from a frame over the bed and enables an invalid to while away many weary hours.

REVIEWS.

THE DISEASES OF WOMEN. A Handbook for Students and Practitioners. By J. BLAND SUTTON, F.R.C.S., Eng., Surgeon to the Chelsea Hospital for Women; Assistant Surgeon, Middlesex Hospital, London, and ARTHUR E. GILES, M.D., B.Sc., London., F.R.C.S., Edin., Assistant Surgeon, Chelsea Hospital for Women, London. With 115 illustrations. Philadelphia: W. A. Saunders, 1897.

THIS is a small volume of about 400 pages. As the authors say in their preface, it has been their earnest desire to relate facts and to describe methods in a way that may be useful to students in preparing for examination. The subjects are, therefore, briefly treated and rather in the form of definitions than in that of a continuous treatise. The illustrations are good, some of them representing original work by Giles. The paper is good and the type clear, but the binding does not seem strong enough for the weight of the paper.

THERAPEUTIC HINTS.

For the Vomiting of Pregnancy.—POZZI reports good results from the treatment of this affection by means of hypodermic injections of cocain in the epigastric region, and states that this method has proved successful after hypodermics of morphin and the internal administration of cocain had been unsuccessful tried. He injects ⅙-grain of cocain once or twice daily immediately before meals in the region mentioned. The improvement is permanent, and no unfavorable concomitants have been noted.

For Chapped Hands.—

℞	Menthol		gr. xxiv
	Salol, Ol. olivæ	aa	gr. xlv
	Lanolini		℥ iii.

M. Sig. Apply to the hands twice daily.

For the Diarrhea of Phthisis.—

℞	Pulv. catechu		gr. xxxvi
	Syr. krameriæ		℥ i
	Tinct. cinnamomi		gtt. x
	Vin. rubri		℥ iii.

M. Sig. A tablespoonful three or four times daily.

For Hemorrhoids.—

℞	Chrysarobini		gr. xxv
	Iodoformi		gr. x
	Ext. belladonnæ		gr. xx
	Vaselini		℥ i.

M. Ft. ungt. Sig. Apply locally twice daily.

For Spasmodic Cough in Adults.—

℞	Bromoformi		℥ i gr. l
	Tr. gelsemii		℥ ii
	Syr. lactucarii		℥ ii
	Pulv. acaciæ		q. s.

M. Sig. One teaspoonful three to four times daily.

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MEDICAL NEWS.

A WEEKLY MEDICAL JOURNAL.

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>
> "By means of this PEPTOGENIC MILK POWDER, and with a very simple and practical process originated and perfected by us, the caseine of cows' milk is *modified* and pre-digested, and other essential components so supplied as to yield a product almost identical in physiological, chemical, and physical properties with human milk."—*Fairchild's Peptogenic Pamphlet, 1884.*

The milk mixtures now made under the trade-marked name of "modified" milk are simply mixtures of cows' milk, water, milk sugar, and cream. Caseine cannot be altered in its character by dilution. The caseine of cows' milk differs radically from the peptone-like albuminoids of mothers' milk, and it is this difference which constitutes the main obstacle to the use of cows' milk as a substitute for mothers' milk.

An adequate physiological substitute for mothers' milk must not only have the same percentage of milk solids but must also have the same *digestibility*—the same deportment with the gastric juice. This can only be achieved by Fairchild's method of modifying milk by means of the proteolytic enzyme, which converts caseine by simple hydration into a soluble form, and renders the milk remarkably like mothers' milk in all respects.

FAIRCHILD BROS. & FOSTER, New York, Chicago, London.

AFTER THE GRIP, WHAT?

FEW diseases are marked by such tedious and unsatisfactory convalescence as is the one known as epidemic influenza. After the acute symptoms have passed away, extreme weakness and prostation remain, persisting for a long time in spite of the ordinary modes of treatment. The patient is left in a condition of general debility altogether disproportionate to the apparent gravity of the affection. Vague neuralgias and mental hallucinations occur, together with an unaccustomed liability to contract other diseases with very slight exposure, or to suffer relapses of this disease. If the patient be a brain-worker he finds it especially difficult to apply himself to his usual tasks. Either physical or mental exertion is followed by profound exhaustion.

Let us now look into the actual condition present, and then we can more intelligently seek an appropriate remedy—not merely a temporary palliative.

The patient has just passed through a serious and violent disease which, although of comparatively brief duration, has profoundly affected the great nerve centers, and from which they naturally can recover but slowly. Through excessive weakness of the nervous supply of the vital organs, their functions are but feebly and imperfectly carried on. How many there are who date the beginning of a permanent state of decline to their attack of La Grippe.

The ordinary tonics—iron, quinine, strychnine, &c.—seem utterly unable to cope with this condition. In fact, it is not stimulation that the patient needs, as by it he is only led to overtask his strength, and finally finds himself completely broken down. He needs a reconstruction of the worn-out tissues.

The remedy which will be effective, then, must be one that will convey to the tissues the revivifying and vitalizing agent, phosphorus, in its oxidizable and assimilable form. Thus the true vitality of the nerve structure is restored, and with it the healthy function is re-established. The process is not that of stimulation, or whipping up the exhausted powers, but is one of renewing the nutrition of the tissues themselves; hence, it is steady and sure in its progress and permanent in its results. The patient feels that he is gradually recovering his accustomed strength of mind and body.

The one form in which the compounds of phosphorus, as they exist in normal animal cells, can be conveyed to the tissues and there utilized is in the oxidizable form of the hypophosphites of lime and soda, chemically pure. It should be given early, and continued, at appropriate intervals, until the condition has been entirely overcome. Its favorable action in convalescence from acute diseases in general is especially marked in the disease under consideration. By its use many cases of chronic invalidism can be averted, and the susceptibility to intercurrent diseases corrected.

As it is essential to have the agent in an absolutely chemically pure form, McArthur's syrup should be prescribed. This is an agreeable, wholesome syrup, containing only the pure hypophosphites of lime and soda. If you are not already acquainted with it, a full-sized bottle will be sent you, if you will agree to pay express charges. Address, The McArthur Hypophosphite Company, Boston, Mass.